245 [654] plots but agricultural officers intended to launch a campaign in the district in 1963 to induce a wider use of this method which could considerably improve the present disappointing yields.

● [221] There is a definite seasonality in harvesting; production in the area reaches a peak in the months of the dry season and falls off after August. Growers are careful to pick only ripe cherries. They take the cherries in a bag to the river, pulp them by trampling the bag and then wash them. The beans are placed in hollowed logs or 'boats', covered with water and fermented for about 36 hours. They are then washed and spread in the sun to dry.

The resultant parchment coffee is carried to Saiho where the Orokaiva Coffee Growers' Society has a buying centre.

435 [434] Not all receipts for sales of coffee from the sample plots had been kept but the 4 producers stated that their sales of parchment coffee had brought them a total of £11 in 1962. With the prices around 1 shilling per pound this would approximate the income expected from 500 trees bearing a little less than half a pound annually.

249 (ii) Rubber. We shall conclude our descriptive account of commercial agriculture with a historical resumé of the overall organization of the production and marketing of the rubber which for 40 or 50 years has been grown at Sivepe and throughout most of this tribal territory. This account seems worthy of inclusion here, not so much as a report on one of the very few areas in the Territory where rubber is produced from trees owned by indigenes, but as a sketch of part of a long and chequered experience of the cash economy which the mountain Orokaiva have had as primary producers.

Members of the clans now represented in Sivepe and Binduta participated in the planting of 4 small stands of rubber (Hevea brasiliensis) near their villages in the years following World War I. These plots, known as Binduta, Sarua, Korinasua and Pusahambo, ranged from less than half an acre to about 3 acres in area.

The Sivepe neighbourhood at the time was included in the Kokoda District, a part of the Kumusi Division. By 1918, 8,000 rubber plants had been distributed to villages in the district which was considered too far inland for worthwhile copra production. In 1920 the government plantation, established at Kokoda in 1908, had 12,000 rubber trees on its 125 acres, and villages in 27 subdistricts had a total of 5,000 trees planted in stands of their own. Among these were the 4 plots near Sivepe. The growth of the [245] trees was said to be vigorous. By 1921, 7,000 rubber trees and 4,900 coconuts had been planted throughout the district and by 1922 the numbers had increased to 8,134 and 6,887. In 1924

512 433 241 Such weekly variations can, in part, be correlated with rainfall (see Fig.6:5), less work being done in wet weather as virtually all Orokaiva activities are pursued out of doors; even cooking, weather permitting, is done in front of rather than inside the house. However, while the labour requirements of certain activities vary little from week to week, others are restricted to particular parts of the year or are in response to specific events, and it is these extraordinary activities which commonly account for the weekly variations in activity time.

(a) The subsistence sector

(i) Food production. Subsistence activities predominate, accounting for 30 of the 40.6 hours expended per man-week (see Table 6:4), and within these gardening is the most important single category involving 13.2 hours with bush clearing another 3.7 hours per man-week. Nine hours of the gardening time are spent on the cultivation of the staple food crop, taro.

Although the data provide little evidence for any relationship between the pattern of gardening activities and climatic seasonality, this may be accounted for by the absence of a distinct 'dry' during 1964 (see Fig.6:4). The Sivepe people speak of the dry season as, traditionally, a 'time of famine' and intensification of work when their taro gardens are not producing and they are obliged to resort to wild yams and breadfruit for sustenance, together with the cultivated yams harvested and stored during the preceding wet season. While acknowledging that this has been substantially modified with the introduction of Xanthosoma and sweet potatoes, and the increasingly common practice of sago extraction, the fact that August 1964 proved to be a wetter month than December in Sivepe[1] results in a less well defined seasonal pattern being presented by the data than might otherwise have been the case.

[461] [262] [251]

[221] New garden sites are cleared throughout the year but preferably following dry spells of a week or more for successful burnings. However, there are few taro tops available for planting during the dry season itself. Table 6:4 shows that the most intensive clearing took place during period I, with 4.4 hours per man-week. This figure includes 0.8 hours expended on the communal garden and the time spent on clearing for subsistence therefore approximates more closely to the figure of 3.3 hours for period III, the early part of the wet season.

The time devoted to subsistence gardening tends to increase during the survey. However, in comparing taro, yam and sweet potato, distinct patterns of activity emerge. In taro cultivation

[1] 15.42 and 14.17 inches being recorded respectively.

[TEXT CONTINUED ON PAGE 83]

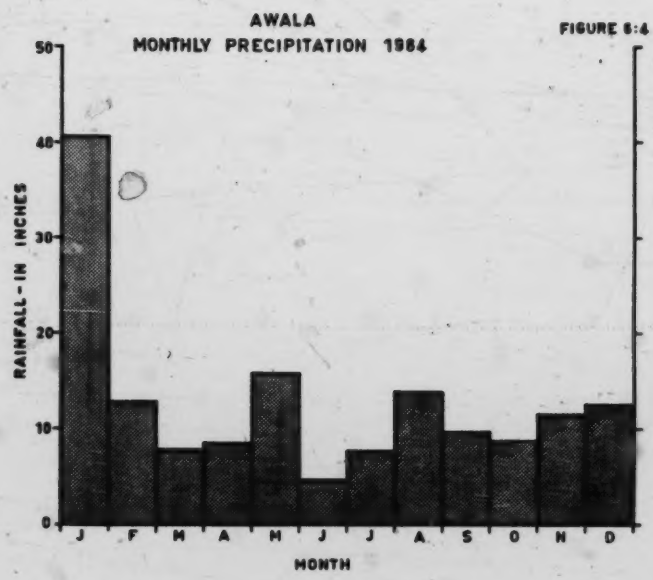

FIGURE 6:4

much time is spent in planting and, more particularly, maintenance, unlike the other crops, which suggests that their labour requirements are much lower.

In spite of the atypical weather experienced during 1964, harvesting patterns vary for the several crops. While time devoted to taro cultivation always exceeds that of the other two crops, harvesting falls off markedly during the dry season. In contrast, the time devoted to the harvesting of sweet potato increases steadily through the survey, while that of yams is confined almost entirely to the wet season when large quantities are stored in specially constructed yam houses (or occasionally in holes in the ground).

As with the sweet potato and yam, work on the minor crops and economic trees is restricted almost entirely to harvesting their products - 1.6 hours per man-week. Ins, pitpit, bananas, sugar-cane, areca, coconuts and breadfruit are the major items in this category.

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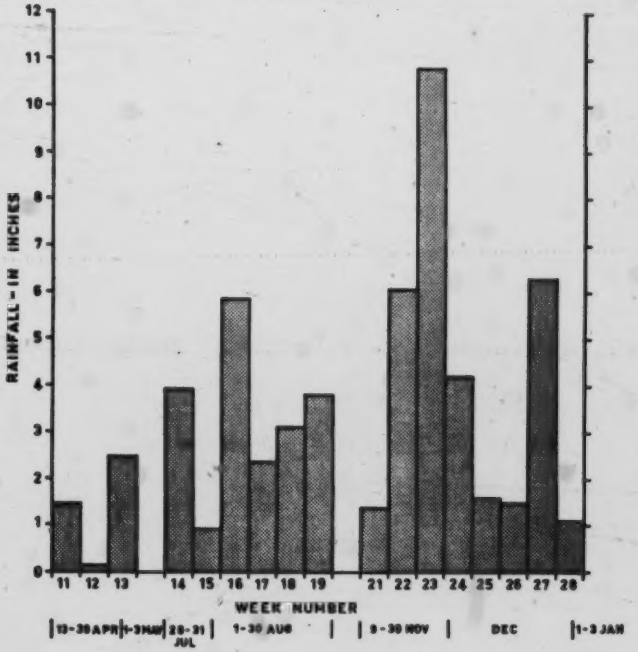
SIVEPE

WEEKLY PRECIPITATION (WEEKS 10 TO 28 ONLY) FIGURE 6:5



512 433 124 [22] Some, such as coconuts, bananas, areca and ina, are gathered throughout the year, but pitpit is collected and eaten primarily during the latter part of the wet season, while the harvesting of breadfruit is confined almost entirely to the dry season. It is at this latter time alone that activities connected with the minor foods assume some importance. During period II, 3.4 hours per man-week were devoted to the harvesting of other crops and products, over 60 per cent of this being for breadfruit alone.

244 Breadfruit trees grow around the village and in garden areas, some being planted and others self-sown but preserved when garden sites are cleared. All are individually owned. Harvesting is relatively easy, the fruit being removed from the tree with the [262] aid of a knife attached to a long stick. Sago apart, the breadfruit comprises a major element of diet during the dry months.

433 While the inland Orokaiva are essentially food-gardeners - a fact dictated largely by the density of occupation where intensive [224] utilisation of the forest has greatly reduced its plant and animal resources - both hunting and sago-making are of limited importance [512] and occupy 1.8 and 0.4 hours per man-week respectively.

224 Traditionally the Sivepe people claim to have hunted feral pig high on the slopes of Mt Lamington but this has ceased now they [136] 'have too much to do'. No such pigs are found in the bush adjacent to the village but bandicoot, wallaby, cus-cus, flying fox, and a variety of birds are not uncommon. Periodically domestic pigs [411] enter gardens whereupon they are usually hunted out and killed, either by the irate gardener or the owner of the animal. While a spear may be used in the latter case, shotguns are now often used on special hunting parties organised where a net is employed. Use of the two shotguns held in the village is usually confined to the owner and others who contributed to its purchase. Such hunting, with the aid of a torch, is normally done on moonlit nights and is most common in the dry season when flying fox are attracted to the ripe breadfruit.

[512] During the survey, however, most hunting was done during period III when 4.8 hours per man-week were recorded, the avowed object being to 'stockpile' smoked meat for the annual Christmas feast held on Sasembata mission station. Large intra- and inter-village group drives were organised daily for two weeks, the activities being initiated by the priest blessing the dogs. Wallabies were the principal animals caught. During both weeks time spent hunting exceeded 11 hours per man-week, or more than that devoted to taro gardening. These drives were facilitated by a spell of unusually dry weather.

222 252 Sago-making is a highly seasonal activity. In Sivepe, production [22] is confined primarily to the dry season when 1.5 hours per man-week [512] were spent on it, rising to 6.4 hours in week 16 when only taro gardening, among subsistence activities, was of greater importance. [461] The work is arduous and is only undertaken with reluctance as the flour must be produced as quickly as possible following the felling of the tree. It is one of the few activities not interrupted by heavy rain.

[461] Because of the very high labour requirements, sago-making is essentially a group enterprise and, not being popular, is only commenced when a number of families have little producing food in their

[TEXT CONTINUED ON PAGE 87]

Another 30 per cent of the time is devoted to traditional dancing at events inspired by the external agencies, in particular church festivals and public holidays; 18 per cent is devoted to what might be called 'institutionalised parties', for example, the celebration of a church wedding or the opening of a women's club, again events associated with the contact situation; and a mere 14 per cent is devoted to feasting of a traditional nature, such a practice now apparently being relegated to a minor place in Orokaiva society.

All ceremonial events tend to be concentrated around Christmas when the gardens are in full production, and involving at that time as much as 6.2 hours per man-week in a single week (week 1).

(b) The external sector

All commercial production, together with those activities directly associated with the presence of the external agencies (for example, church services, formal meetings, etc.), fall within the external sector of the economy. Together they account for 10.6 hours per man-week, of which only 3.2 hours (spent in cash cropping and paid work) are concerned directly with the acquisition of cash.[1]

(i) Cash cropping. Most of the time spent in cash cropping is devoted to coffee production - 1.3 hours per man-week - although only five households are directly involved in it. The buying season is determined by the OCGS to coincide with the flush and extends from March to October. There is no off-season buying and coffee-producing activities are confined to this period, particularly the months of April through to July. Clearing of the gardens and any pruning are restricted to the start of the season to facilitate access to the trees. Most harvesting and processing is done early in the season, falling off gradually as stocks are accumulated, the main flush passes and the opportunity to sell is awaited.[2] While 1.9 hours per man-week were expended on coffee production for the whole of period I, virtually all activity was confined to the last six weeks when 4.2 hours were expended (2.0 hours on harvesting and the balance on processing). During period II only 0.5 hours were devoted to production, with a further 0.5 hours to marketing per man-week.

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[1] However, a further 0.3 hours per man-week are spent in marketing subsistence crops and products. See p.88.

[2] This reduction in the level of activity might equally be related to the initial sale of coffee, disappointment at the price obtained resulting in a marked loss of enthusiasm. Further, during period II, the labour requirements of the subsistence sector increase as do the demands made by the external agencies, and these factors may also influence the level of coffee production.

Patterns of activity and seasonal influences

An average of 43.5 hours per man-week are spent on all activities.[1] However, the general level of activity and distribution of time varies widely from week to week and also, in some cases, seasonally (see Table 7:3 and Figures 7:2 and 7:3).

(a) The subsistence sector

(i) Food production. Subsistence gardening is the most important category of activity, accounting for an average of almost 12 hours per man-week. Over half of this time is devoted to taro cultivation, except during the dry season when planting and, in particular, harvesting of taro are reduced, although maintenance increases. Over the year as a whole, the time spent on taro is almost equally divided between planting, weeding and harvesting. For the other crops, however, little time is spent on weeding and most attention is given to harvesting. This is true of sweet potato and yam, which are usually grown in specialised gardens, as well as of minor crops such as corn, cassava and banana which are usually interplanted with taro. Yams are planted late in the year and harvested in the dry season. Sweet potato is planted both in the dry and early in the wet season, the latter being the main harvesting period, before taro is in full production. Over one-fifth of the 2.1 hours per week spent on minor crops involves coconuts, another fifth bananas and 18 per cent sugar-cane. Eleven per cent is devoted to pitpit but this crop accounts for one-quarter of the total during the wet season. Cultivation of plants that provide edible leaves (ins) accounts for 9 per cent of the time spent on minor crops over the survey, but 29 per cent in the dry season. Corn and pumpkin account for about 5 per cent each.

Clearing of gardens takes place throughout the year, most in dry spells at the onset of the wet season when newly planted crops will benefit from the rain. In February and March 1964, during the wet season, there was an unusually high rate of clearing after a flood in January destroyed several gardens containing maturing crops. During period II (the dry season), the rate of clearing was comparatively slow, partly because the season was abnormally wet and partly because of the large amount of time invested in fencing, which is necessary particularly at this time since feral pigs from more remote bush areas tend to invade the gardens for food. Clearly, the protection of growing crops has a higher priority than the establishment of new gardens.

During the dry season, food-producing activities other than gardening increase in importance, and sago-making is concentrated

[1] See, however, the adjustment for additional data, pp.136, 138.

[TEXT CONTINUED ON PAGE 133]

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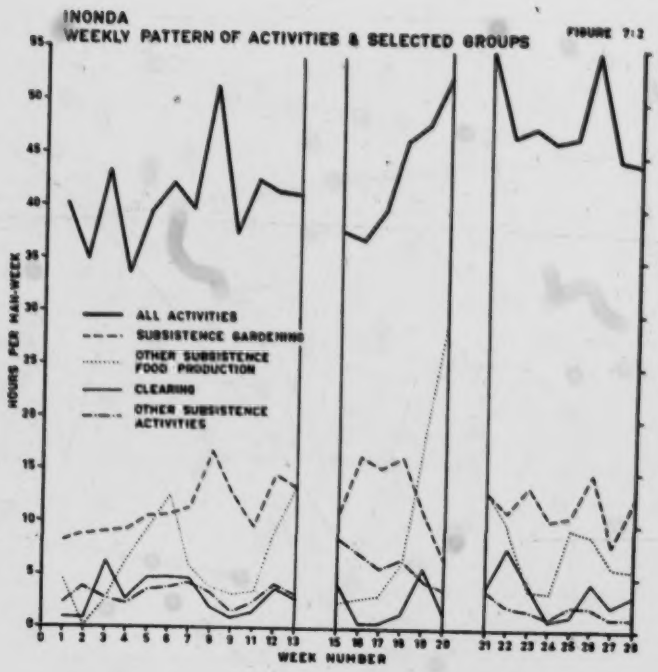

towards the end of this season. Due to the intensive demands on labour for sago-making, men often spend all the daylight hours on this task, so that the average working day is longer than at other times, reaching 7.5 hours. The time spent on sago is at the expense of not only leisure but also of clearing, subsistence gardening, other subsistence activities and involvement with external agencies (particularly council work). Although sago-making is normally restricted to the dry season, in 1964 one household had to resort to sago near the end of the wet season, because the people concerned had spent several months late in 1963 at Saiho hospital and, on returning to Inonda, had no time to clear sufficient gardens to provide food throughout the wet season.

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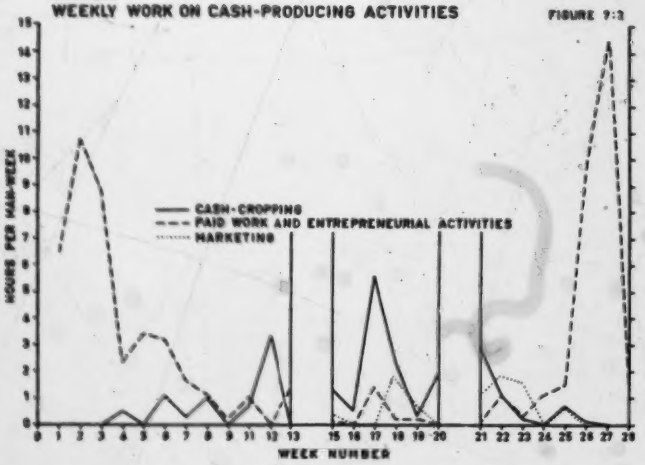
IHONDA
WEEKLY WORK ON CASH-PRODUCING ACTIVITIES FIGURE 7:3



222 The gathering of forest plants receives more attention during
462 the dry season to compensate for lower garden production. The
262 increased dietary significance of such plants at this time is, perhaps, understated in Table 7:3, since women often collect green leaves beside paths while walking to or from other activities and such gathering may not be recorded. In addition, a considerable
224 amount is gathered by children. Hunting also increases during the
221 dry season, with the increased number of wild pigs. However, a
[411] significant factor in 1964 was the acquisition of a shotgun in July by the leading man (with financial assistance from others, who thereby acquired rights of use). From this time, hunting to obtain
226 meat for both food and marketing increased, becoming most popular
221 during period III when marketing also was most frequent. Due to the drop in water levels, the time devoted to fishing during the dry season is much less than in the rest of the year, but over the year as a whole, more time is spent in it than in any other single activity.

438 daily exchanges of products between villagers when they have a temporary surplus, rather than a continuing specialisation. Al-
[433] though some individuals do tend to concentrate more time than others on certain crops - as the widower in Inonda does with yams[1] - surpluses (and their counterpart, shortages) are frequently the
[574] result as much of chance as of policy. Thus, near the end of the dry season a settler held a feast at short notice to mark the end
[431] of a dispute with an Inonda man. The Inonda people decided not to make a return presentation at the same time since they had only sago available and would be humiliated if they offered this in return for the others' taro. In the event, contributions by people from the settlement blocks and other villages included more banana and sweet potato than taro.

The circulation operates at several different levels: the level of the village itself, that of a context which is more or less restricted to the occurrence of close kin and which, except perhaps for some affines, is only about three miles in radius, and finally the broader district level, which embraces greater environmental differences and is the sphere of operation of the comparatively
[436] long-distance hawkers from both the coastal and mountain areas. At
[178] this level, the volume of exchange is small; it is not necessarily based on kinship or even friendship ties and it is now almost entirely monetised.

437 (ii) Labour services. Labour assistance in the subsistence sector shows a pronounced seasonality (see Table 11:6). This is
221 largely due to the fact that 46 per cent of all the assistance received in the subsistence sector during the survey was in sago-making and all of this occurred during three weeks in the dry season.

Table 11:6

Inonda: mean weekly transactions of labour services during each recording period
(hours)

Labour services		Period I	Period II	Period III
Cash sector	Acquisition	1.9	4.0	1.5
	Disposal	2.5	1.6	2.6
Subsistence sector	A	8.3	67.6	10.5
	D	11.5	38.8	4.7
Total	A	10.2	71.6	12.0
	D	14.0	40.4	7.3

[1] Cf. pp.166-7. A

A. [See Category 512, pp. 166-167--Analyst]

437 The major part is received from Inonda people but a significant
221 proportion comes from outsiders, mainly young unmarried kinsmen from other villages. One tree will normally provide enough food reserves for several families, so not everyone makes sago during the year and assistance, whether from within or outside the village, may not be repaid until the following year and may not necessarily be in sago-making. This is the main reason for the imbalance noted above[1] between services received and given. Assistance in some less time-consuming tasks is also seasonal. The hunting and butchering of game is concentrated almost entirely into the feasting season (period I), whereas assistance in tasks connected with garden establishment occurs mainly in the dry season and the beginning of the wet. The mean weekly acquisition of services in tasks related to the monetary sector was highest in the dry season, when one man received help in establishing a coffee garden. Monetary sector services in the other periods were primarily in maintenance of mature coffee trees.

434 (iii) Cash. There is a sharp rise in the mean amount of cash acquired through the three recording periods (see Table 11:7), reflecting increased income from marketing in periods II and III and from the construction contract in period III. These factors
432 are a result not of seasonal influences but of exploiting chance opportunities. Weekly expenditure also increased, but much more slowly. Even so, there is a rapid turnover of cash. The excess weekly expenditure in period I is derived largely from cash acquired in paid employment and trade store sales immediately before the survey began. The excess in period II results from gifts of cash and cash crop sales in the weeks prior to the start of the period. The rise in expenditure in period II reflects seasonal purchases of flour but the increased spending in period III was mainly on clothing.

Table 11:7

Inonda: mean weekly transactions of cash during each recording period
($)

		Period		
		I	II	III
Cash	Acquisition	5.11	10.05	26.20
	Disposal	9.65	12.47	14.75

[1] Page 235.

512 early on Sunday morning, but otherwise Saturday and Sunday are spent in much the same way as the other days of the week. Most people trim the grass and clear away any rubbish around their houses on Friday mornings. This is known as "council work" as it is made mandatory by a council by-law. It takes only an hour or two and not all villagers do these chores at this time.

221 Although there is some seasonal rhythm in subsistence activities, it does not seem to be very great, and relatively few other activities are affected by seasonal variations. The obligations associated with death, marriage and ceremonial activities seem to have a much greater effect on the patterns of work.

462 House-building, hunting and bush-clearing are primarily the province of men. Women's work includes weeding, harvesting, and domestic chores. Both sexes co-operate in planting, collecting firewood, stacking and burning dead wood, and foraging for wild foods. Men appear to work jointly with their wives much more in the cash crop gardens than they do in the food gardens.

125 A brief survey of patterns of work was undertaken for a period of six weeks (from 2nd July to 12th August 1962). Such a short study cannot give any indication of seasonal variations, nor can it be considered as necessarily representative of the year as a whole. In fact, owing to the death of one of the village elders during our stay, a considerable amount of time was spent in mourning and attendant social obligations. But since the beginning of 1959 there have been an average of two deaths per year in the village, and when one considers that the villagers are also involved in deaths of relatives in other villages, in marriages both here and elsewhere, in feasts, church celebrations and other commitments, the amount of time spent in social obligations during this period may not have been unduly out of proportion. The survey was undertaken as a pilot project only, on the basis of which it is proposed to organize a much deeper study of time patterns among the Orokaiva over a

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The following rough assessment of total days expended on various tasks per year has been made.

Subsistence	Assessed man-days per year (adults only) Men	Women	Average
Bush clearing: 1.1 acres per adult male. We assume that men take about 10 man-days to clear an acre, and are assisted by their womenfolk during 4 man-days.	10	4	7
Planting: 0.5 acres per adult per year shared roughly equally by men and women assuming 8 man-days per acre of planting.	4	4	4
Weeding, maintenance and harvesting: 25% above pilot survey for although during that time harvesting was increased, weeding was reduced due to funerary commitments.	19	109	64
[417] Fencing: One household of 6 adults (incl. 2 visitors) and 2 children erected 239 ft. of fence in 6 hours. Another household of 3 adults built 145 ft. in 8½ hours. This suggests that an adult, as a member of a team, can construct approx. 50 ft. of fence per day. There is a total of 7,148 ft. of intact pig-fence around the food gardens which was constructed during the 12 months preceding our survey. On the average therefore each household makes about 900 ft. of fence per year, which would require approximately 18 man-days per household, or about 7 days work per adult per year.(1)	7	7	7

(1) Wild pigs are most prevalent in the areas which border the Hydrographers Range. In the central parts of the Orokaiva country there are few wild pigs and the people do not build fences. This saves them time but, on the other hand, they cannot supplement their diet with fresh meat to the extent that the "border" people can.

	Men	Women	Average
461 221 462 [224] [226] [222] Hunting, fishing and foraging: Taken as 25% below pilot survey (as hunting increased during mourning and fishing increased during dry season; foraging not fully accounted for as often done in the course of other activities). Hunting all by men, fishing mostly by men, foraging mostly by women	30	8	19
[342] Housebuilding: House rebuilt about every 4 years. Assuming that it takes about 16 man-days to build a house.	4	-	2
Total subsistence activities:	74	132	103
[241] Cash cropping: Assessed time needed to maintain and harvest area planted (1.85 acres) averaged over all adults.	6	6	6
Council work: Road work say 4 days per man per year.	4	-	2
Church: Services 2 hours per week, plus church celebrations 2 days per year.	17	17	17
Sickness (including caring for the sick): Based on survey period.	23	29	26
Paid work: Based on actual paid work undertaken so far this year.	72	-	36
Total other activities:	122	52	87
Social obligations			
Death: Based on 2 deaths per year in this village, each involving the equivalent of 10 days absence from productive activities; and 5 deaths elsewhere which concern Inonda people involving 3 days each.	35	35	35

	Men	Women	Average
Marriage: Based on one marriage in the village or elsewhere involving 3 days each.	3	3	3
Travel: (Mostly to visit rellatives in relation to life crises). Based on survey period.	25	27	26
Other: Christenings, feasts, mothers' clubs, school openings, etc.	18	18	18
Total social obligations:: (This is 40% less than the survey period).	81	83	82
Summary			
Subsistence activities	74	132	103
Cash cropping	6	6	6
Paid work	72	-	36
	152	138	145
Council work, church activities, sickness etc.	44	46	45
Social obligations	81	83	82
	277	267	272
Days remaining per year	88	98	93

No account has been taken of time spent in leisure or housekeeping activities.

241 Food must be planted at most periods of the year as most
221 Orokaiva crops cannot be stored, but there is a difference according to the purpose of the plantings. Seed planted outside the optimal period can be grown for no purpose except subsistence; plantings made in the optimal period may be in preparation for feasts. Their purpose is not only subsistence but also abundance. The Orokaiva calendar contains a specific feasting season which immediately precedes the "planting" season. Taro planted between July and September reaches maturity between April and June. This is the season of feasts and abundance.

241 A distinction must be made between the ideological and the
221 statistical work calendar. The latter has been set out here from
924 data collected by Waddell (n.d.) in Sivepe and shows that at no period agricultural activities are confined to one particular phase of the work, such as planting or weeding or cultivating or harvesting. There are, however, clear fluctuations showing an emphasis on planting during certain periods and on harvesting, etc. during other periods (Table 5). The ideological calendar, as given to us by informants, both in Sivepe and Hoborita, distinguishes seven phases related to the annual cycle of three forest trees. The calendar noted by Crocombe in Inonda (1963: 6) though more summary, follows the same principle, while differing in some minor details.

1. When the garepa flowers, the taro should be ready to harvest. (The reference is, as in this whole calendar, to the main taro harvest.) But this flowering has several phases: the flowers are first white, later yellow, finally bloodred. When some of them are bloodred, the taro is "really" ready. This is the time when small feasts are given for the owner of the land, but not yet big feasts, for it is only the first of the crop that are really ready.
2. When all the garepa flowers are bloodred, feasting time has really started. This is, in the Mount Lamington area, around Easter time.
3. Another sure sign of the approach of the feasting season is the ripening of the tauga nut (called hauga in the Sangara dialect). While garepa is watched during the time of shortage before the main harvest, tauga is watched during the time of plenty. The nuts are plentiful, delicious and rich in first-class protein.
4. At the end of May, about two months after the beginning of the feasting season, white flowers appear on the baramba tree. This is a sign that the seeds should now quickly be planted in the land. The dry period is beginning; the period when clearing and burning can be done with the least loss of fertility. As these flowers appear, feasts will still be in progress in the villages, but the old men will begin to make moralistic speeches that feasting should now be over and people should return to garden work.
5. Soon after this, perhaps a month later, the leaves of the tauga begin to fall; it is good if by that time a good deal of

A [See Cat. 116, pp. 209-210--Analyst]

planting is already completed for when the old people see the tauga leaves drop over the newly planted gardens they say that the taro will have good leaves; their virtue is said to come from the tauga leaves that drop. The driest part of the year is now at hand and few taro shoots suitable for planting are developing; hence, the best planting time is past.

6. The flowering of the tauga announces the beginning of the rainy season. This falls around the beginning of October.

7. At about Christmas, immature tauga nuts begin to fall from the trees. This is the beginning of the time of shortage and also the occasion of some further garden magic to encourage the swelling of the main taro crop. Some minor feasts occur around this time. People then begin to look forward to the time the garepa will flower again.

We may compare this with Waddell's statistical data, which compares man-weeks spent on all types of activities in Sivepe over the periods 3 February-3 May, 1964; 20 July-6 September, 1964; and 9 November, 1964-3 January, 1965. His figures do not rally particularly closely with the idealogical pattern set out by informants and he explains this by an untypical rainfall pattern in 1964; it was unusually dry.

Rainfall fluctuations have a profound effect on the yield of the main crop taro. Because of the porosity of the ground, very heavy rainfall is needed to ensure a good harvest. Feasts can be held only in years when the rainfall has been good and the harvest accordingly abundant. In other years people are close to starvation level in the months before the harvest. It is then they rely on supplementary crops such as sago.

In recent years, two further calendars have become superimposed upon the traditional one: that of the Christian festivals and that of the European economy, notably monthly coffee sales from June to December and the payment of Local Government Council tax supposedly in September.

Section 3: Topography

In this section I shall specifically describe the differences in topography between Sivepe and Inonda, but this description will illustrate at the same time the fundamental differences between the ecological base of Orokaiva mountain settlements such as are found on the slopes of Mount Lamington and of the plains settlements found North and East of the mountain. I have drawn my data from a regional land and soil survey done by the Commonwealth Scientific and Industrial Research Organisation in 1954, as well as from remarks of Crocombe and Hogbin (1963) and Rimoldi (1966).

TABLE 5

MEAN TIME SPENT PER MAN-WEEK ON
SUBSISTENCE ACTIVITIES IN SEASONAL VARIATIONS
IN SIVEPE, 1964

Source: Eric Waddell, manuscript

Activity		Periods			
		I: 3 Feb - 3 May	II: 20 Jul - 6 Sept	III: 9 Nov - 3 Jan 1965	Total
Clearing		4.4	2.4	3.3	3.7
Taro:	Planting	1.9	2.8	3.0	2.4
	Maintenance	3.0	3.9	4.5	3.6
	Harvesting	3.4	1.9	3.0	3.0
	Marketing	0.1	-	-	0.1
Sweet Potato:	Planting	-	-	0.1	-
	Harvesting	0.7	1.1	2.4	1.3
	Marketing	0.1	-	-	0.1
Yam:	Planting	0.6	-	-	0.3
	Maintenance	-	-	0.2	0.1
	Harvesting	0.8	0.1	0.6	0.6

22: Schwimmer E-4,5 (1966-1967) 1969 OJ23 Orokaiva OJ23
Mount Lamington

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TABLE 5
(Continued)

Minor Crops:	Planting	-	0.1	0.1	0.1
	Maintenance	-	-	0.1	-
	Harvesting	1.0	3.4	1.1	1.6
	Marketing	0.1	-	0.3	0.1
Fencing		-	-	0.2	0.1
Fishing		0.2	-	0.5	0.2
Hunting		0.7	0.8	4.8	1.8
Sago-making		-	1.5	0.4	0.4
Preparation of Tools and Equipment		0.3	-	0.5	0.3
Construction		2.2	1.6	0.6	1.6
TOTAL		19.7	19.8	25.8	21.3

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